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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,884	03/19/2007	Paul Tidwell	3772-36	3720

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EXAMINER	
PHAM, TIMOTHY X	
ART UNIT	PAPER NUMBER
2617	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/590,884	TIDWELL, PAUL	
	Examiner	Art Unit	
	TIMOTHY PHAM	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 14-16, 21, 23, 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al. (hereinafter "Fischer"; US 2002/0163932) in view of Gannage et al. (hereinafter "Gannage"; US 2004/0151158).

Regarding claims 14 and 25-26, Fischer discloses a method, a Media Resource Function, and an User Equipment of optimising the bandwidth usage (paragraph [0401]) on a Real-Time Protocol (paragraph [0409], e.g., the framing of samples into an RTP voice packet) managed link transporting media between User Equipment of a cellular telecommunications network (paragraphs [0369]), the method comprising:

sampling, at one of the User Equipment, the rate of packet loss on the link (paragraphs [0372], [0376], [402], [0409], e.g., the loss of a single VoIP packet will cause 80 frame slips. Only one such loss is allowed per 320 minutes if the 0.25 frame slip per minute goal is to be achieved); and

adapting the sending rate over the link in dependence upon the sampled values (paragraphs [0282], [0366], [0401], [0408], [0494], e.g., During the period of lost lock, the slave may choose to continue to send the VoIP frames, since the master may recover quickly enough to send some of them).

Fischer fails to specifically disclose the Media Resource Function.

However, Gannage discloses the Media Resource Function (paragraph [0033]).

Therefore, taking the combined teachings of Fischer and Gannage as a whole, it would have been obvious to one having ordinary skill in the art at the time of invention by applicant to have the Media Resource Function for advantages of handling real time transfer of voice through streaming (Gannage: paragraph [0008]).

Regarding claim 15, Fischer in combination with Gannage, discloses the method according to claim 14, wherein the Media Resource Function handles media distribution for Push-to-talk over Cellular services (Gannage: paragraphs [0006], [0033], e.g., Push to Talk).

Therefore, taking the combined teachings of Fischer and Gannage as a whole, it would have been obvious to one having ordinary skill in the art at the time of invention by applicant to have wherein the Media Resource Function handles media distribution for Push-to-talk for advantages of handling real time transfer of voice through streaming.

Regarding claim 16, Fischer in combination with Gannage, discloses the method according to claim 14, said method comprising applying a sliding window to the sampled values, and calculating an average or other statistically representative value across the window, the sending rate being adapted based upon changes in the representative value as the window is advanced (Fischer: paragraph [0321], e.g., A sliding-window average of length N is used to bound maximum response time to N received packets).

Regarding claim 21, Fischer in combination with Gannage, discloses the method according to claim 14, wherein the step of sampling is carried out at one or both of the User Equipment and the Media Resource Function (Fischer: paragraph [0409], e.g., the sample rate of

the analog voice signal at the handset must match a standard 8 kHz value that is established for the entire voice transmission path in order to avoid frame slips (lost samples or sample gaps) which compromise the quality of voice traffic and significantly reduce the throughput of voice-band data flows; therefore, the sampling is carried out at the User Equipment).

Regarding claim 23, Fischer in combination with Gannage, discloses the method according to claim 14, wherein decisions to adapt the sending rate over the link (Fischer: paragraphs [0282], [0366], [0401], [0408], [0494]) are made at the Media Resource Function (Gannage: paragraph [0033]).

Therefore, taking the combined teachings of Fischer and Gannage as a whole, it would have been obvious to one having ordinary skill in the art at the time of invention by applicant to have decisions to adapt the sending rate over the link as taught by Fischer, and combine the Media Resource Function as suggested by Gannage for advantages of handling real time transfer of voice through streaming.

3. Claims 17-20, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer in combination with Gannage in view of Vimpari (US 2003/0117972).

Regarding claim 17, Fischer in combination with Gannage, discloses the method according to claim 16, fails to specifically disclose decreasing the media sending rate as the representative value increases, and generally increasing the sending rate as the value decreases, in order to optimise bandwidth usage on the link.

However, Vimpari discloses decreasing the media sending rate as the representative value increases (paragraphs [0027], [0031]), and generally increasing the sending rate as the value

decreases, in order to optimise bandwidth usage on the link (paragraphs [0027], [0031], [0038], e.g., the number packets to be in the RTP packet can be either increased or decreased).

Therefore, taking teachings of Fischer in combination with Gannage and Vimpari as a whole, it would have been obvious to one having ordinary skill in the art at the time of invention by applicant to decrease the media sending rate as the representative value increases, and to increase the sending rate as the value decreases for advantages of handling real time transfer of voice through streaming.

Regarding claim 18, Fischer in combination with Gannage and Vimpari, discloses the method according to claim 17, comprising comparing the representative value to a pre-defined acceptable loss rate, it being a pre-condition for decreasing the sending rate, that the representative loss rate exceeds the acceptable loss rate (Fischer: paragraphs [0372], [0076], e.g., The frame-slip rate (voice-sample loss rate) of the entire VoIP path should not exceed 0.25 slips per minute), and it being a precondition for increasing the sending rate that the representative loss rate is less than the acceptable loss rate (Fischer: paragraphs [0376], [0381]).

Regarding claim 19, Fischer in combination with Gannage and Vimpari, discloses the method according to claim 18, it being a further pre-condition for both increasing and decreasing the sending rate that a pre-defined time period has elapsed since the sending rate over the link was last adapted and, in the event that this time period has not elapsed since the sending rate was last adapted, the sending rate is not changed (Fischer: paragraphs [0373], [0381], e.g., The end-to-end path latency for any voice call should not exceed 150 msec).

Regarding claim 20, Fischer in combination with Gannage and Vimpari, discloses the method according to claim 19, wherein the pre-defined time period which is used to determine

whether or not the sending rate may be increased is greater than that used to determine whether or not the sending rate may be decreased (Vimpari: paragraph [0031], [0036]); (Gannage: paragraphs [0025], [0032]).

Therefore, taking teachings of Fischer in combination with Gannage and Vimpari as a whole, it would have been obvious to one having ordinary skill in the art at the time of invention by applicant to have the pre-defined time period which is used to determine whether or not the sending rate may be increased is greater than that used to determine whether or not the sending rate may be decreased for advantages of handling real time transfer of voice through streaming.

Regarding claim 22, Fischer in combination with Gannage, discloses the method according to claim 21, fails to specifically disclose wherein the UE samples the rate of packet loss on the downlink, while the Media Resource Function samples the rate of packet loss on the uplink.

However, Vimpari discloses the samples packet loss on the downlink at the UE and the samples packet loss on the uplink at MRF (paragraphs [0005], [0031]).

Therefore, taking teachings of Fischer in combination with Gannage and Vimpari as a whole, it would have been obvious to one having ordinary skill in the art at the time of invention by applicant to have the UE samples the rate of packet loss on the downlink, and the Media Resource Function samples the rate of packet loss on the uplink for advantages of handling real time transfer of voice through streaming.

Regarding claim 24, Fischer in combination with Gannage, discloses the method according to claim 14, wherein decisions to adapt the sending rate over the link (Fischer: paragraphs [0282], [0366], [0401], [0408], [0494]) are made at the Media Resource Function

(Gannage: paragraph [0033]), wherein the UE sends the sampled rate or an analysis of the rate to the Media Resource Function (Fischer: paragraphs [0282], [0366], [0401], [0408], [0494]).

Fischer in combination with Gannage fails to specifically disclose the UE samples the rate of packet loss on the downlink, whilst the Media Resource Function samples the rate of packet loss on the uplink.

However, Vimpari discloses the samples packet loss on the downlink at the UE and the samples packet loss on the uplink at MRF (paragraphs [0005], [0031]).

Therefore, taking teachings of Fischer in combination with Gannage and Vimpari as a whole, it would have been obvious to one having ordinary skill in the art at the time of invention by applicant to have the UE samples the rate of packet loss on the downlink, and the Media Resource Function samples the rate of packet loss on the uplink for advantages of handling real time transfer of voice through streaming.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY PHAM whose telephone number is (571)270-7115. The examiner can normally be reached on Monday-Friday; 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent P. Harper can be reached on 571-272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Timothy Pham/
Examiner, Art Unit 2617

/AJIT PATEL/
Primary Examiner, Art Unit 2617